

From the Ground Up: Alentejo's Soils

Soil: It's complicated (and technical)! For every generalization, there's an exception. That's not surprising when each small plot of land is a universe unto itself, with soils changing foot by foot. That is why winemakers around the world are mapping out their vineyards block by block. Some of the things they look at are: different layers (topsoil and subsoil), the basic type (e.g. marine vs volcanic), chemical composition, structure (how loose or tight) and depth.

But here are a few facts to get you thinking:

The Alentejo has the most varied soils of any region in Portugal. In Alentejo, where plains intermingle with mountains, hills and valleys, the result is a wide variety of soils, derived from clay, limestone, quartz, granite, schist, sandstone, and others.

Wheat is grown in areas with more fertile soil. Vines thrive in areas with poor soils (i.e. low organic content), so the roots have to burrow down deep to get nutrients. Alentejo is "rich" in "poor" soil areas.

The landscape is dotted with rocky outcrops, ravines, and the ubiquitous cork trees. All provide homes for animals, above and below ground. This biodiversity makes for a naturally healthy soil, rather than over-farmed, over-fertilized soil. (Remember the French oenologist who 40 years ago compared Bordeaux's famous soils to those of the Sahara because of over-use of chemical fertilizers!)

Chemical fertilizers make vines lazy, as the roots stay close to the surface where the food is, but that means they are also more affected by heat, a major concern in the Alentejo, especially in an extra-hot summer. Alentejano growers therefore have a practical reason to avoid chemicals.

Through the centuries, the best fruit has been planted in cooler locations or on water-retentive soils. Today, with drip irrigation and better technology in the winery, Alentejo's soil diversity has been turned into an advantage -- a perfect soil partner for each grape variety or style of wine.

Most of the soils are non-calcareous, which means they are neutral or more acidic. (This affects how food is absorbed by the roots; acidic soil does not make a wine acidic.) Some experts believe, though, that acidic soil is good for whites, so this may be one reason Alentejo produces such delicious whites.





Alentejo's Soils Continued

Some of the soils found in Alentejo:

- Decomposed granitic soils: They retain water important in warm Alentejo. The Portoalegre DOC is famous for spicy, powerful wines made from the Grand Noir grape, often found on the area's granite and, in the lower elevations, schist soils.
- Marble in Estremoz (Borba DOC): Dynamite is used to crack the marble and plant vines! But once that's done, the marble provides a special home for the vines. Marble is calcium carbonate, which imperceptibly dissolves, leaving tiny fissures for precious water to gather and nourish the vines. No irrigation is need, despite the limited rainfall. It is also cooler below than on the ground.
- Schist-derived soils: They are cooler on top than marble soils, for example, so vines ripen more slowly. Some experts believe that schist soils create wines with more structure.
- Clay soils: These soils are cooler and also retain water. The clay and schist soils in the very hot dry area of Granja-Amareleja provide a home for the distinctive Moreto grape.
- Clay and limestone: Limestone tends to produce wines that are lighter bodied, "more elegant," and the clay and limestone soils of the Moura DOC are often home to the Castelão grape.





Jane Kettlewell: <u>Jane@CPalate.com</u> 718-704-4041 Kate Corcoran: <u>Kate@CPalate.com</u> 347-239-1976